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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/730,177 | 12/05/2000 | Chang Hyun Lee | SO-405 | 8039 |

7590 05/21/2004

Transnational Enterprises, Inc.
95 BULLDOG BLVD.
SUITE 207
MELBOURNE, FL 32901

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| EXAMINER |
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GRANT, ALVIN J

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| ART UNIT | PAPER NUMBER |
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3723

DATE MAILED: 05/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.



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APR 05 2004

TECHNOLOGY CENTER R3700

Office Action Summary

Application No.

09/730,177

Applicant(s)

LEE ET AL.

Examiner

Alvin J Grant

Art Unit

3723

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Attachment A

Notice

Neither the amendment filed on 17 April 2002 nor the amendment filed on 15 May 2002 complied with Rule 121 as it stood at the time of filing of either of these amendments. However, as the office has just recently been made aware of the 15 May 2002 amendment, both amendments will be accepted and considered together under rule 135(c) as set forth in MPEP 710.01 as a response so that the merits of the application will be examined. The Examiner is able to act on the claims but the amendments made to the specification have not been made. Any reply to this action must be in conformance with 37CFR 1.21 in its current form as amended effective on 30 July 2003. Please note a copy of the updated version of Rule 121 is attached to this office action for your convenience.

DETAILED ACTION

Claim Objections

Claims 8, 11, 12, 14, 15, 16, 17 and 19 are objected to because of the following informalities:

- Claim 8, in the last line, change "with predetermined intervals" to read, "at predetermined intervals".
- Claim 11, line 1, change "comprising" to read, "comprises"; and in line 2, change "which are" to read, "and located".
- Claim 12, line 2, change "with respect to on both sides" to read, "respectively on both sides".
- Claim 14, change "increase the ring portion to the periphery" to read, "increase from the ring portion toward the periphery".
- Claim 15, line 4, change "gradually according as" to read, "gradually as".
- Claim 16, line 1, change "comprising" to read, "comprises"; and in line 2, change "which are" to read "located".
- Claim 17, line 2, change "with respect to on both side surfaces" to read, "respectively on both side surfaces".

Art Unit: 3723

- Claim 19, line 3, change "according as" to read, "as".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 11 and 12, recite the limitation "surface of the circular steel disk are radially overlapped in position with the wings on the other side surface" which is awkwardly and confusingly worded.

Claims 10 and 15 recite the limitation "both arcs" in 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ji '017 in view of Achterberg '786.

Ji discloses a saw blade comprising a steel disk including an opening at the center for connecting with a shaft of a motor-driven tool and particulate bearing layer on both surfaces of the steel disk, a plurality of streamlined wings extending from the ring portion to the periphery of the steel disk, the streamlined wings are formed on both side surfaces of the steel disk so that the first streamlined wings are formed on both side surfaces of the steel disk are overlapped with second streamlined wings attached on the other side

Art Unit: 3723

surface ; the first streamlined wings on one side surface of the circular steel disk are overlapped in a full and aligned manner with the second streamlined wings on the other side surface of the circular disk; the steel disk comprises a plurality of slits on its outer periphery at predetermined intervals between the cutting segments; and the cutting segments are turbo-type defined as planar jig-jag profiles with respect to both sides of the cutting surface. Ji does not specifically disclose that the blade contained slits on the periphery at predetermined intervals with holes with sizes increasing from the center toward the periphery of the blade. Achterberg discloses a saw blade containing slits located at predetermined intervals along the periphery and holes with sizes increasing from the center to the periphery of the saw blade so as to improve the cutting ability of the blade and to aid in the dissipation of the heat contained therein. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the saw blade of Ji to have slits located at predetermined intervals along the periphery and holes with sizes increasing from the center to the periphery of the saw blade as taught by Achterberg, so as to improve the cutting ability of the blade and to aid in the dissipation of the heat contained therein.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Grant whose telephone number is (703) 305-3315. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on (703) 308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ajg

A handwritten signature in black ink, appearing to read "Joseph J. Hail, III". The signature is fluid and cursive, with the last name "Hail" being more prominent.

Joseph J. Hail, III
Supervisory Patent Examiner
Technology Center 3700

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|-----------------------------------|---------------------------------------|--|-------------|
| Notice of References Cited | Application/Control No. 09/730,177 | Applicant(s)/Patent Under Reexamination LEE ET AL. | |
| | Examiner Alvin J Grant | Art Unit 3723 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|-------------------|----------------|
| | A | US-6,277,017 B1 | 08-2001 | Ji, Beom Hyun | 451/547 |
| | B | US-Des. 382,786 | 08-1977 | Achterberg et al. | D8/20 |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
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FOREIGN PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
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NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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